

### **REMARKS**

Claims 1-4, 6, 8, 11, and 12 are pending in the application. The Examiner's reconsideration of the rejections in view of the remarks is respectfully requested.

Claims 1-4, 6, 8, 11, and 12 have been rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. The Examiner suggested that "while the specification provides one way to perform these functions, the specification does not provide a general way that would enable all potential methods of performed these functions."

Generally, the application describes a method for determining a feasible schedule (or determining that a feasible schedule does not exist). Prior proposed solutions required exponential computational time to determine a feasible schedule and/or could fail to identify a feasible schedule.

The pinwheel problem is exemplary of a scheduling problem; the pinwheel problem is concerned with communication between  $n$  transmitters and a common receiver, wherein the  $n$  transmitters have dwell and revisit times. The receiver can only receive one signal at a time and the transmitters do not receive feedback about whether a transmission has been received. A feasible schedule guarantees that a signal is received by the common receiver from each transmitter.

Note that while the pinwheel problem has certain constraints (e.g., the dwell time of each transmitter is the same), the claimed subject matter is more general and can be applied to various scheduling problems by using the theoretical probability and the actual probability of jobs described in more detail with respect the rejection under 35 USC 112, second paragraph below.

Turning to the merits of the rejection, 35 USC 112, first paragraph requires that the specification put forth a best mode. 35 USC 112, first paragraph does not require a general description "that would enable all potential methods" as suggested in the rejection. As concerns the breadth of a claim relevant to enablement, the only relevant concern should be whether the scope of enablement provided to one skilled in the art by the disclosure is commensurate with the scope of protection sought by the claims.

The claims must be considered as a whole; when viewed as a whole, the claims are believed to describe what the applicant has invented; that is a method of generating a feasible schedule for  $n$  jobs given a duration and a revisit time for each job.

Consider that to demand that the applicant limit the claims to what has been found will work or to materials which meet the guidelines specified for "preferred" materials in a process involved would not serve the constitutional purpose of promoting progress in the useful arts; the claims are not required to be limited to a best mode. The claims meet the requirements of 35 USC 112, first paragraph when one of ordinary skill in the art would understand the scope of protection sought by the claims. One of ordinary skill in the art would understand the mathematical principles described in the specification for creating a verity of different applications capable of performing the claimed functions.

In view of the foregoing, the claims are believed to be sufficiently definite such that those skilled in the art would understand what is being claimed when the claim is read in light of the Specification.

Claims 2-4, 6, 8, 11 and 12 depend from Claim 1 and are believed to be allowable for at least the reasons given for Claim 1. Reconsideration of the rejection is respectfully requested.

Claims 1-4, 6, 8, 11, and 12 have been rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. The Examiner suggests that it is unclear as to what either a theoretical probability or actual probability of jobs denotes, and how each of these elements server to determine the feasibility of a job schedule.

Claim 1 claims, *inter alia*, “calculating a theoretical probability for each of the  $n$  jobs, wherein the theoretical probability is a probability that a job will be performed next; calculating an actual probability for each of the  $n$  jobs, wherein the actual probability is a relative amount of time that each job is to be performed.”

The theoretical probability and actual probability are believed to be clearly recited in the claims, therefore, Applicants will describe the problem to clarify the claimed subject matter. A schedule is feasible if every job  $i$  can be performed again no more than  $\mu_i$  seconds after it was last performed. In order to determine if a schedule is feasible certain parameters are determined; specifically the theoretical probability (when a job  $x$  will be performed as determined in steps 4-5 at page 11 of the specification) and actual probability (how long job  $x$  will take to be performed as determined in steps 6-7 at page 11 of the specification).

Having determined the theoretical probability or actual probability of jobs, a potential schedule can be determined and searched for a feasible schedule (see page 14, line 11 to page 15, line 21).

Note that the theoretical probability and actual probability should not be confused with the theoretical proportion and actual proportion, which are used in determining the actual probability.

In view of the foregoing, reconsideration of the rejection is respectfully requested.

Claims 1-4, 6, 8, 11-12 have been rejected under 35 USC 102(a) as being anticipated by Feinberg et al. ("Sensor Resource Management for an Airborne Early Warning Radar," Proceedings of SPIE Vol. 4728, Signal and Data Processing of Small Targets (April 2002).

The Feinberg reference is describing applicant's own work. The contribution of the authors of Feinberg et al. ("Sensor Resource Management for an Airborne Early Warning Radar," Proceedings of SPIE Vol. 4728, Signal and Data Processing of Small Targets (April 2002) are set forth in the records.

Reconsideration of the rejection is respectfully requested.

For the forgoing reasons, the application, including Claims 1-4, 6, 8, 11, and 12, is believed to be in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

Respectfully submitted,

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